CLAIMS

1. In combination with geometrical modeling of physical bodies, a method for evaluation and design of a structural product formed in accordance with said geometrical modeling, including the steps of: establishing multiple topological views representing said structural product through use of inner and outer boundaries; associating properties and analysis with said topological views; and mapping said multiple topological views to a common and unique base geometry.

2. The method as defined in claim 1 wherein said topological views overlap within a parametric domain of said base geometry defining physical space of said structural product.

3. In combination with the method as defined in claim 1, a method for connecting boundary elements of said topological views, where such boundary elements include points on curves, edges on surfaces, faces on solids.

4. The method as defined in claim 3 wherein said step of connecting the boundary elements is performed using connection objects mapping parametric domain space of two or more of the boundary elements to common parameters, of which Cartesian is one, through multidimensional spline functions.

5. The method as defined in claim 3 wherein said step of connecting the boundary elements is performed using connection objects mapping two or more parametric points on the respective boundary elements to a common Cartesian location in space.

6. The method as defined in claim 4 wherein said step of connecting the boundary elements is performed using connection objects mapping parametric edge elements of a topological view of type face to common parameters of which Cartesian location is one, through multidimensional spline functions.

7. The method as defined in claim 4 wherein said step of connecting the boundary elements is performed using connection objects mapping parametric surfaces elements of a topological view of type volume to common parameters of which Cartesian location is one, through multidimensional spline functions.